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10/542,571

07/19/2005

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EXAMINER

TRAN, MICHAEL T

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|-------------------------------|--------------------------------|--|
| Office Action Summary | Application No. 10/542,571 | Applicant(s) UESHIMA ET AL. | |
| | Examiner Michael T. Tran | Art Unit 3709 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 July 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 04/000,441.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>07/19/05;01/23/07</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 07/19/05 and 01/23/07 was filed. The submission is in compliance with the provisions of 37 CFR 1.97.

Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3, 5-10, and 13-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Kaji et al. (US 2003/0171142).

Regarding claim 1: Kaji teaches an entertainment apparatus using cards for obtaining inputs from a plurality of cards on each of which a visually human-identifiable design is printed and performing information processing in accordance with the inputs [paragraph 14], comprising: a photographing means for photographing said design of said card and fetching a photographic pixel data array [paragraph 15 and 20]; a

database including a plurality of entries individually corresponding to said plurality of cards, each of the entries including a pair of a card ID and a comparison data array [paragraph 24]; a card identification means for searching said database for a specific comparison data array based on said photographic pixel data array and obtaining a card ID pairing up with the specific comparison data array [paragraph 29 and 152]; and an information processing means for performing said information processing with said card ID obtained by said card identification means as an input [paragraph 30-33].

Regarding claim 2: Kaji teaches the photographing means includes an image sensor for photographing said design and outputting a photographic signal [paragraph 20], a data array forming means for sampling said photographic signal at a first resolution and forming a data array [paragraph 193], and a photographic pixel data array forming means for re-sampling said data array at a second resolution which is lower than said first resolution and forming said photographic pixel data array, and said comparison data array includes comparison data corresponding to said second resolution [paragraph 195 and 196].

Regarding to claim 3: Kaji teaches the card identification means calculates a distance between said photographic pixel data array and said comparison data array, and obtains the card ID of the entry with the comparison data array at the shortest distance [paragraph 201].

Regarding claim 5: Kaji teaches the distance is a sum total of squares of differentials between the respective elements of said photographic pixel data array and the corresponding elements of said comparison data array [paragraph 188-192].

Regarding claim 6: Kaji teaches the photographic pixel data array forming means forms said photographic pixel data array with assignment of a predetermined weight to each element of said data array [paragraph 200].

Regarding claim 7: Kaji teaches the card identification means includes a threshold value determination means for determining whether or not said sum total of differentials is larger than a predetermined threshold value [paragraph 203]; and excludes any entry with said sum total of differentials larger than said predetermined threshold value from identification candidates [paragraph 204 –213].

Regarding claim 8: Kaji teaches the card identification means includes a number-of-candidates determination means for determining a total number of candidates which are left as a result of determination by said threshold value determination means, and does not obtain any card ID when it is determined by said number-of-candidates determination means that the number of candidates is "0", and obtains the card ID of the identification candidate when it is determined that the number of candidates is "1" [paragraph 215].

Regarding claim 9: Kaji teaches the entertainment apparatus further comprising a second database including one or more entries, each of the entries including a plurality of candidate card IDs and one determination card ID, wherein said card identification means includes a number-of-candidates determination means for determining whether two or more said identification candidates are left or not, searches said second database for an entry in which there is a match between a combination of card IDs of the left candidates and a combination of said candidate card IDs in said second

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database when it is determined by said number-of-candidates determination means that the number of candidates is "two or more" and, if there exists any matching entry, obtains the determination card ID of the entry [paragraph 387 and 388].

Regarding claim 10: Kaji teaches the database includes card data corresponding to each entry, and said information processing means includes a card data display means for displaying at least the design based on the card data of the entry corresponding to said card ID obtained by said card identification means [paragraph 153].

Regarding claim 13: Kaji teaches an entertainment apparatus further comprising: a card photographing part for setting said card in a predetermined position [paragraph 156]; and a light source for irradiating light to a surface to be photographed of the card set in said card photographing part [paragraph 156].

Regarding claim 14: Kaji teaches an entertainment apparatus further comprising a reflection means for diffusely reflecting light from said light source and letting the light enter said surface to be photographed [paragraph 20].

Regarding claim 15: Kaji teaches an entertainment apparatus further comprising: a photographing part cover for covering said card photographing part, the cover having a position correction mark on a surface opposite to said photographing means [paragraph 22]; and a photographic pixel data fetching area correction means for correcting a fetching area of photographic pixel data based on said position correction mark, wherein said photographing means photographs said position correction mark under a state where no card is set in said card photographing part [paragraph 21].

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4. Claim 12 is rejected under 35 U.S.C. 102(e) as being anticipated by Ishihara et al. (US 2002/0028710).

Regarding claim 12: Ishihara teaches an entertainment apparatus using cards [paragraph 7], which obtains inputs from a plurality of cards on each of which a visually human-identifiable design is printed and performs information processing according to the inputs, comprising: a photographing means for photographing said design of said card and fetching a photographic pixel data array [paragraph 7]; a card identification means for obtaining a data string corresponding to the design from said photographic pixel data array [paragraph 8]; and an information processing means for performing said information processing with said data string obtained by said card identification means as an input [paragraph 8].

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 16 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Shimura et al. (US 5,644,765).

Regarding claim 16: Shimura teaches a method of identifying a card by photographing a plurality of cards on each of which a visually human-identifiable design is printed, including steps of: (a) preparing a database including a plurality of entries individually corresponding to said plurality of cards, each of the entries including a pair

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of a card ID and a comparison data array (col.3; lines 17-26); (b) photographing said design by an image sensor and obtaining a photographic signal (col.3; lines 27-29); (c) sampling said photographic signal at a first resolution and forming a data array (col.3; lines 30-47) ; (d) re-sampling said data array at a second resolution which is lower than said first resolution and forming photographic pixel data array (col.3; lines 30-47); and , (e) searching said database for a specific comparison data array based on said photographic pixel data array and obtaining the card ID pairing up with the specific comparison data array (col.4; lines 26-43).

Regarding claim 17: Shimura teaches wherein, in the step (e), a distance between said photographic pixel data array and said comparison data array is calculated, and the card ID of the entry with the comparison data array at the shortest distance is obtained (col.4; lines 44-63).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kaji et al. (US 2003/0171142) as applied to claim 1 above, and further in view of Ishihara et al. (US 2002/0028710).

Regarding claim 11: Kaji teaches an entertainment apparatus as mention in claim 1 above but does not specifically disclose a cartridge connector, wherein said cartridge connector is equipped with a memory cartridge and the memory cartridge stores another database. However, Ishihara teaches a cartridge connector equipped with a memory cartridge and the memory cartridge stores another database [paragraph 38]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the memory cartridge taught by Ishihara to the entertainment apparatus of Kaji in order to hold lager amount of data representing the individual features of the game characters.

9. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kaji et al. (US 2003/0171142) as applied to claim 3 above, and further in view of Shibuya (US 7,006,693).

Regarding claim 4: Kaji teaches an entertainment apparatus as mention in claim 3 above but does not specifically disclose the distance is a sum total of absolute values of differentials between respective elements of said photographic pixel data array and corresponding elements of said comparison data array. However, Shibuya teaches the distance is a sum total of absolute values (col.2; lines 16-18 and col.4; lines 64-67). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the calculation for the distance is a sum total of absolute values of differentials between respective elements of said photographic pixel data array and corresponding elements of said comparison data array taught by Shibuya to the an

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entertainment apparatus of Kaji in order for the object in the image can be recognize more quickly and precisely.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Keane et al. (US 4,760,247) teaches an optical document reader that is capable of accurately reading marked locations on a card.

Sato et al. (US 6,047,085) teaches an image identifying apparatus capable of identifying color images and patterns with precision and speed.

Plaza (US 7,116,824) teaches a method to the detection, in digital image, of any predetermined pattern.

Simms (US 4,861,031) teaches an apparatus for playing a competitive card game, which simulates the competitive sport of wrestling.

Kawano et al. (JP 2002-102529) teaches a card game device and a method to display information about a game in a position where a player can easily view it.

Ishihara (JP 2001-334012) teaches a character pattern and a capacity data are printed being made visually recognizable on each of the game cards are record or stored in a mechanically readable fashion.

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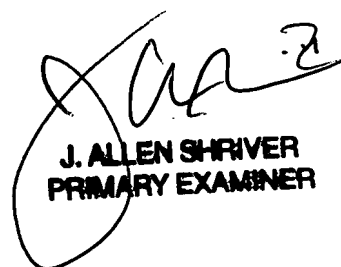
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael T. Tran whose telephone number is 571-270-1887. The examiner can normally be reached on Mon-Friday, 8:00A.M-5:00P.M, Alt Friday, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Jackson can be reached on 571-272-4697. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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07/19/07



**J. ALLEN SHRIVER
PRIMARY EXAMINER**